Cretaceous Park

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Section\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pre-Service worksheet

In understanding how to create these organisms in the lab to go to their respective paddock zones, it is important to first identify how these organisms reproduce before we create the correct environment in our lab. In order to gain security clearance, you will have to pass this test.

1. How does asexual reproduction differ from sexual reproduction? Touch on methods and examples of organisms from both.

Sexual

Asexual

We need to start small. In order to make our ecosystem fully functioning, we require the proper sorts of bacteria, plankton, and other microorganisms.

2. How do bacteria reproduce? When are they haploid or diploid? Draw a brief diagram.

In order to have some of our modern bacteria interact properly with our extinct organisms, we will have to alter its genetic structure.

3. How do bacteria share DNA? What structures are involved?

While we want to have the most authentic but still controlled paddock zones, we want our facilities to be as self-sustaining as possible. That said, our ecosystem needs some decomposers!

4. What is unique about fungi reproduction? Draw a brief diagram of their reproductive cycle.

All of our beloved herbivores need enough food to feed an enormous appetite. Our laboratories have brought back a number of extinct ferns, cycads, and other plants, but the new paddock zone has to start from scratch.

5. How do plants reproduce? What is unique about plant reproduction? Draw a brief diagram.

6. What are some ways to create a genetic copy of a plant?

Now we get to the big stuff! The new paddock zone will be, in part, a stegosaurus sanctuary.

7. How do modern reptiles reproduce? When are they haploid and when are they diploid? How does the reproductive cycle differ from the other organisms in our paddock zone thus far?

8. Given the size of a full-grown stegosaurus and the need for strict control of their genetic expression, the gametes are combined *in vitro*—how does this process work?